3 2.5 2 O.D at 700 nm 1.5 0.5 Ascorbic acid -Water Ethyl acetate 0.10 0.20 0.40 0.60 0.80 1.00 1.25 Acetone Concentration (mg/ml) -Ethanol -Methanol

Fig. 1: Reducing potential of bark extracts from Terminalia arjuna. bark extracts.

Each value is expressed as mean±standard deviation (n=3).

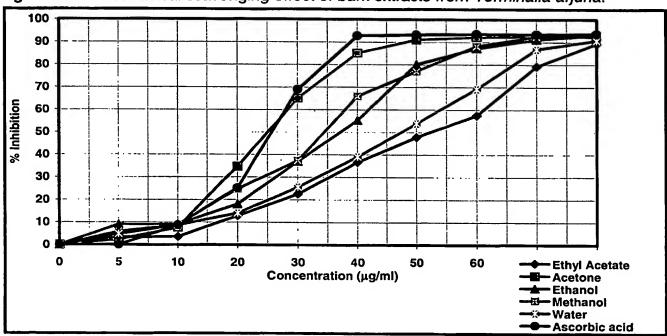


Fig. 2: DPPH free radical scavenging effect of bark extracts from Terminalia arjuna.

Each value is expressed as mean±standard deviation (n=3).

Fig 3. Antibacterial activity of *Terminalia arjuna* bark ethyl acetate, acetone, ethanol, methanol and water extracts (5mg/ml).

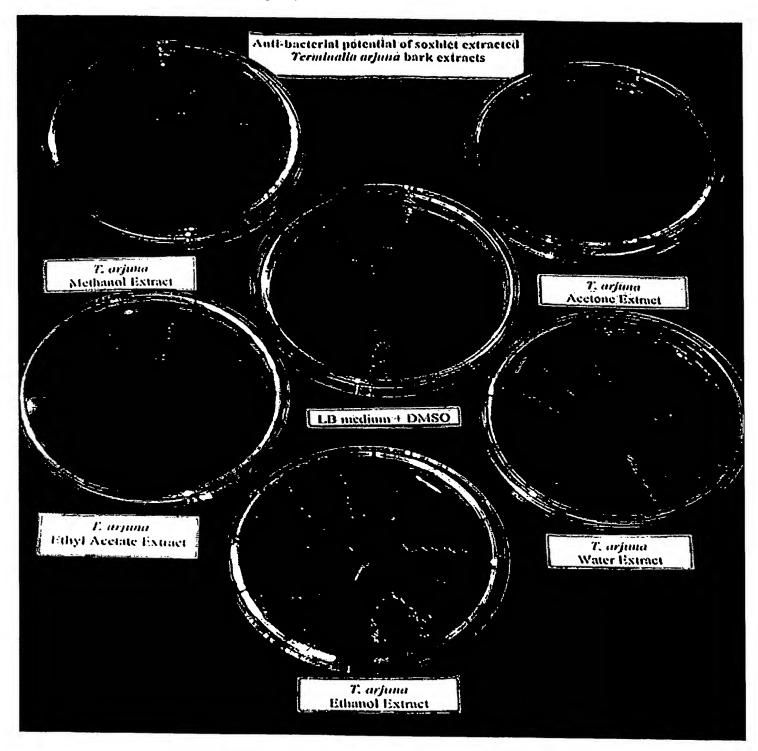


Fig 4: Antibacterial activity of Terminalia arjuna bark ethyl acetate

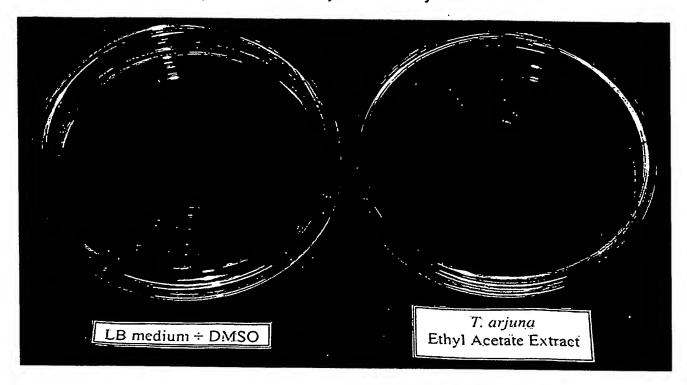


Fig 5: growth of the bacterial strains on the LB, LB with 5 % DMSO and LB with 2 $\mu g/ml$ ciprofloxacin as positive controls

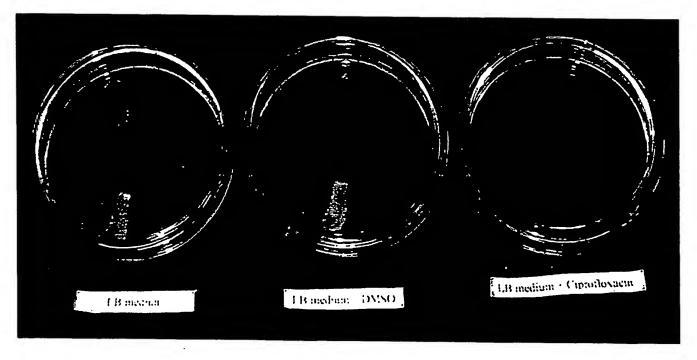


Table 1: Reducing potential of Terminalia arjuna extracts.

Sr. No	Conc. (m g/ml)	O.D at 700 nm								
		Ethyl acetate	Acetone	Ethanol	Methanol	Ascorbic acid	Water			
1.	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
2.	0.10	0.281± .017	0.414±.014	0.421±.047	0.276±0.018	1.562±.076	0.221± 0.007			
3.	0.20	0.589±.023	0.754±.016	0.781±.076	0.513±.020	2.803±.088	0.380± 0.055			
4.	0.40	0.941±.020	1.318±.055	1.273±.082	1.008±.051	2.774±.128	0.789± 0.026			
5.	0.60	1.415±.048	1.737±.200	1.584±.177	1.252±.181	2.686±.042	1.089± 0.046			
6.	0.80	1.737±.256	2.154±.070	2.066±.143	1.698±.027	2.686±.042	1.222± 0.072			
7.	1.00	1.998±.073	2.420±.125	2.575±.083	1.884±.109	2.686±.042	1.439± 0.120			
8.	1.25	2.277±.084	2.802±.064	2.717±.111	1.995±.122	2.686±.042	1.697± 0.121			
9.	1.5	2.554±.072	2.774±.140	2.717±.121	2.334±.056	2.686±.042	2.023± 0.089			

Each value is expressed as mean±standard deviation (n=3).

Table 2: DPPH free radical scavenging effect of bark extracts from *Terminalia* arjuna

Sr.	Conc. (μg/ml)	% Inhibition							
No		Ethyl acetate	Acetone	Ethanol	Methanol	Water	Ascorbic acid		
1.	O	0	0	0	0	0	0		
2.	5	3.4	2.3	9	5.8	4.8	0		
3.	10	3.6	7.7	9.1	8.9	8.8	8.8		
4.	20	12.8	34.6	18	24.8	14	25.2		
5.	30	22.5	65	37	37.3	25.6	68.9		
6.	40	36.5	85.1	55.3	66	39.1	92.8		
7.	50	47.8	91.1	80.1	77	53.9	93.3		
8.	60	57.5	92.3	87.2	88.1	69.2	93.6		
9.	80	79.3	92.5	91.2	92.5	86.8	93.5		
10.	100	89.3	92.8	93	92.5	90.8	93.7		

Each value is expressed as mean±standard deviation (n=3).

+++; abundant growth, +; growth; -, no growth

LB + Cipro-floxacin (2 µg/ml) Control LB+ DMSO (5%) ‡ ‡ ‡ ‡ ‡ ‡ ‡ ‡ ‡ ‡ +++ ‡ ‡ ‡ ‡ ‡ +++ ‡ ‡ +++ ‡ LB 1mg/ml | 5 mg/ml +++ ‡ ‡ ‡ **+ +** ‡ ‡ Water **+** ‡ ‡ ‡ ‡ ‡ +++ ‡ ‡ ‡ 5 mg/ml ‡ ‡ ‡ ‡ ‡ ‡ ‡ Methanol 1mg/ml Table 3. Antimicrobial activity of soxlet extracted Terminalia arjuna bark extracts: ‡ ‡ ‡ ‡ ‡ **+ +** ‡ ‡ ‡ ‡ 5mg/ml ‡ ‡ ‡ ‡ ‡ ‡ ‡ Ethanol 1mg/ml ‡ ‡ +++ ‡ ‡ ‡ ‡ ‡ ‡ ‡ 5 mg/ml ‡ ‡ ‡ ‡ ‡ ‡ ‡ Acetone lmg/ml ‡ +++ ‡ ‡ ‡ ‡ ‡‡ ‡ + 5 mg/ml ‡ ‡ Ethyl Acetate 1mg/ml **+** + + ‡ ++ ‡ ‡ ‡ ‡ **Gram Negative** B. bronchiseptica **Gram Positive** K. pneumoniea P. aeruginosa S. epidermidis Organism pumilus subtilis cereus S. aureus M. luteus S. fecalis E. coli В. 8 В. S. So. 7 ત્ન <u>ö</u> 6 Ś 6 ∞

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